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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/741,191	12/21/2000	Toshiyuki Hasegawa	0666.1640000	7023

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STERNE, KESSLER, GOLDSTEIN & FOX PLLC
1100 NEW YORK AVENUE, N.W., SUITE 600
WASHINGTON, DC 20005-3934

EXAMINER

LUM, LEE S

ART UNIT PAPER NUMBER

3611

DATE MAILED: 10/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/741,191

Applicant(s)

HASEGAWA, TOSHIYUKI

Examiner

Ms. Lee S. Lum

Art Unit

3611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. An Amendment was filed 7/22/02 which added Claims 58 and 59.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2A. **Claims 1-6, 11-18, 23-27, 32-38 and 45-51** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wernick 6085853 in view of Vangsgard 6364041.

Re **Claims 1-6**, Wernick discloses a multi-wheel vehicle, best depicted in Figs 1 and 3, comprising

three or more axles 1-4, where one is frontmost steering axle 14,
first 11, and second 13, coaxial shafts/transmission members ,
wherein the steering axle interlocks with the second shaft,
and one of the other axles interlocks with the first shaft, and,
clutch/power dividing means 42 interposed between the shafts, permitting different
speeds for each shaft via differential 8.

The patent does not disclose the prime mover as between two nonsteerable axles, while Vangsgard shows this arrangement in Fig 2 with prime mover 20. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this arrangement, as shown in Vangsgard, for applications requiring decreased weight towards the rear of the vehicle.

Re **Claims 32-38**, Wernicke further discloses
engine (inherent) which powers one (main device 8) of three or more transaxle devices
8/9/18/20, including frontmost steering device 14,
wherein power is transmitted from the main device to the first shaft.

Re **Claims 11-18, 23-27 and 45-51**, Wernicke further discloses
input shaft 6,
coaxial output shafts 11/12 with respective differential side gears (Col 3, lines 38-40), and,
differential 8 between the shafts.

2B. Claims 7-10, 19-22, 28-31, 41-44 and 54-57 are rejected under 35 U.S.C. 103(a) as
being unpatentable over Wernick in view of Vangsgard, and in further view of Stieg 4462271.

Re **Claims 7, 8, 10, 19, 20, 22, 28-31, 41-44 and 54-57**, the previous patents do not
explicitly show a braking system, while Stieg discloses
brake halves 52/54 (hydraulic ("wet") - Col 3, lines 24-25), pedal (inherent), and,
differential means 100 for locking the output shafts together (Col 5, second full
paragraph).

It would have been obvious to one with ordinary skill in the art at the time the invention
was made to include brakes so that the vehicle may be stopped, as shown in Stieg. Also, it
would have been obvious to use hydraulic brakes, as this type is in wide use, and as is very well-
known in the art.

Re **Claims 9, 21 and 30**, the previous patents do not explicitly disclose that the
nonsteerable axle includes a brake, but official notice is made of the fact that either a steerable
or nonsteerable axle can have a brake.

2C. **Claims 39 and 52** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wernick in view of Vangsgard, and in further view of Kaspar 5848664.

Wernick in view of Vangsgard does not disclose a continuously-variable transmission, while Kaspar shows this element 35. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this element, as shown in Kaspar, in order to increase the efficiency of drive power to the wheels according to the load conditions.

2D. **Claims 40 and 53** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wernick in view of Vangsgard and Kaspar, and in further view of Krettenauer et al 4639008.

The previous patents do not disclose a power take-off (PTO) unit, while Krettenauer shows this element 8. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include PTO, as shown in Krettenauer, to increase torque capabilities of the drive system, thus increase drive power under different load conditions.

2E. **Claims 58 and 59** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wernick in view of Vangsgard, and in further view of Wohlfarth 4823897.

The previous patents do not disclose a first drive train disposed at one lateral side of the vehicle, and a second drive train opposite the first, while Wohlfarth shows this configuration. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this arrangement, as shown in Wohlfarth, to evenly divide the weight of the drive trains within the vehicle, so to increase driving and steering performance, as well as to effect easy access to each drive train for repair and maintenance.

4. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure: Ducote 5392872.


5. RESPONSE TO REMARKS: Moot in light of amendments.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Communication with the Examiner and USPTO

Any inquiry concerning this communication should be directed to Ms. Lum at (703) 305-0232, 9-530, M-F. Our fax number is (703) 308-2571. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to customer assistance at (703) 306-5771.


Lesley D. Morris
~~Primary Examiner~~
SPE AU 3611

Ms. Lee S. Lum
Examiner
10/10/02

